

Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
	Noncompliance Penalty Program				
40 CFR Part 68	Chemical Accident Prevention Provisions	N/A	No	N/A	
40 CFR Part 69	Special Exemptions from Requirements of the Clean Air Act	N/A	No	N/A	(Note A)
40 CFR Part 70	State Operating Permit Programs	N/A	No	N/A	(Note A)
40 CFR Part 71	Federal Operating Permit Programs	N/A	No	N/A	(Note A)
40 CFR Part 72	Permits Regulation	N/A	No	N/A	(Note A)
40 CFR Part 73	Sulfur Dioxide Allowance System	N/A	No	N/A	(Note C)
40 CFR Part 74	Sulfur Dioxide Opt-Ins	N/A	No	N/A	(Note C)
40 CFR Part 75	Continuous Emission Monitoring	N/A	No	N/A	(Note C)
40 CFR Part 76	Acid Rain Nitrogen Oxides Emission Reduction Program	N/A	No	N/A	(Note C)
40 CFR Part 77	Excess Emissions	N/A	No	N/A	(Note C)
40 CFR Part 78	Appeal Procedures for Acid Rain Program	N/A	No	N/A	(Note C)
40 CFR Part 79	Registration of Fuels and Fuel Additives	N/A	No	N/A	(Note C)
40 CFR Part 80	Regulation of Fuels and Fuel Additives	N/A	No	N/A	(Note C)
40 CFR Part 81 81.190	Designation of Areas for Air Quality Planning Purposes	N/A	Yes	Yes	No substantive requirements
40 CFR Part 82, Subpart A-E; G-H	Protection of Stratospheric Ozone	N/A	No	N/A	(Note C)
40 CFR Part 82, Subpart F	Protection of Stratospheric Ozone; Recycling and Emissions Reduction	Recordkeeping	Yes	Yes	
40 CFR Part 85	Control of Air Pollution from Mobile Sources	N/A	No	N/A	(Note C)
40 CFR Part 86	Control of Emissions from New and In-Use Highway Vehicles and Engines	N/A	No	N/A	(Note C)
40 CFR Part 87	Control of Air Pollution from Aircraft and Aircraft Engines	N/A	No	N/A	(Note C)
40 CFR Part 88	Clean-Fuel Engines	N/A	No	N/A	(Note C)
40 CFR Part 89	Control of Emissions from New and In-Use Non-road Compression-Ignition Engines	N/A	No	N/A	(Note C)
40 CFR Part 90	Control of Emissions from Non-road Spark-Ignition Engines at or Below 19 Kilowatts	N/A	No	N/A	(Note C)
40 CFR Part 91	Control of Emissions from Marine Spark Ignition Engines	N/A	No	N/A	(Note C)
40 CFR Part 92	Control of Air Pollution from Locomotives and Locomotive Engines	N/A	No	N/A	(Note C)
40 CFR Part 93	Determining Conformity of Federal Actions to State or Federal Implementation Plans	N/A	No	N/A	(Notes A,C)
40 CFR Part 94	Control of Emissions from Marine Compression-Ignition Engines	N/A	No	N/A	(Note C)

Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
40 CFR Part 95	Mandatory Patent Licenses	N/A	No	N/A	(Note C)
40 CFR Part 96	NO _x Budget Trading Program for State Implementation Plan	N/A	No	N/A	(Notes A, C)
40 CFR Part 97	Federal NO _x Budget Trading Program	N/A	No	N/A	(Note C)

APPLICABILITY EXPLANATION CODES

A - Regulation applies to regulatory authority.

B - Rules governing ambient air quality standards and/or monitoring or definitions of criteria for air pollution emergency purposes and do not apply to individual sources.

C - Facility is not in this source category.

5.3 APPLICABLE AND INAPPLICABLE NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60)

Table 5.3-1 cites applicable and inapplicable New Source Performance Standards given in 40 CFR Part 60 (IDAPA 58.01.01.590).

Table 5.3-1 Applicable and Non-Applicable New Source Performance Standards (40 CFR Part 60)

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994 (Subpart Cb)	No
Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (Subpart Cc)	No
Emission Guidelines and Compliance Times for Sulfuric Acid Production Plants (Subpart Cd)	No
Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators (Subpart Ce)	No
Fossil fuel-fired Steam Generators (Subpart D)	No
Electric Utility Steam Generating Units (Subpart Da)	No
Industrial-Commercial-Institutional Steam Generating Units (Subpart Db)	No
Small Industrial-Commercial-Institutional Steam Generating Units (Subpart Dc)	Yes- Applies to the new East processing boiler
Incinerators (Subpart E)	No
Municipal waste combustors (Subpart Ea)	No
Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 24, 1994 (Subpart Eb)	No
Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996 (Subpart Ec)	No
Portland cement plants (Subpart F)	No
Nitric Acid Plants (Subpart G)	No
Sulfuric Acid Plants (Subpart H)	No
Asphalt Concrete Plants (Subpart I)	No
Petroleum refineries (Subpart J)	No
Storage Vessels for Petroleum Liquids--for Construction, Reconstruction, or Modification, Commenced after June 11, 1973, and prior to May 19, 1978 (Subpart K)	No
Storage Vessels for Petroleum Liquids--for Construction, Reconstruction, or Modification, Commenced after May 18, 1978, and Prior to July 23, 1984 (Subpart Ka)	No

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
Volatile Organic Liquid Storage Vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984 (Subpart Kb)	Yes – See discussion below
Secondary Lead Smelters (Subpart L)	No
Secondary Brass and Bronze Ingot Production Plants (Subpart M)	No
Iron and Steel Plants (Primary Emissions from Basic Oxygen Furnaces Constructed after June 11, 1973) (Subpart N)	No
Iron and steel plants (secondary emissions from basic oxygen furnaces constructed after January 20, 1983) (Subpart Na)	No
Sewage Treatment Plants (Subpart O)	No
Primary Smelters: Copper (Subpart P)	No
Primary Smelters: Zinc (Subpart Q)	No
Primary Smelters: Lead (Subpart R)	No
Primary Aluminum Reduction Plants (Subpart S)	No
Wet process Phosphoric Acid Plants (Subpart T)	No
Superphosphoric Acid Plants (Subpart U)	No
Diammonium Phosphate Plants (Subpart V)	No
Triple Superphosphate Plants (Subpart W)	No
Granular Triple Superphosphate Storage Facilities (Subpart X)	No
Coal Preparation Plants (Subpart Y)	No
Ferroalloy Production Facilities (Subpart Z)	No
Steel Plants: Electric Arc Furnaces (Subpart AA)	No
Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels constructed after August 17, 1983 (Subpart AAA)	No
Kraft Pulp Mills (Subpart BB)	No
Glass Manufacturing Plants (Subpart CC)	No
Grain Elevators (Subpart DD)	No
Surface Coating of Metal Furniture (Subpart EE)	No
Stationary Gas Turbines (Subpart GG)	No
Lime Manufacturing Plants (Subpart HH)	No
Lead-acid Battery Manufacturing Plants (Subpart KK)	No
Metallic Mineral Processing Plants (Subpart LL)	No
Automobile and Light-duty Truck Surface Coating Operations (Subpart MM)	No
Phosphate Rock Plants (Subpart NN)	No
Ammonium Sulfate Manufacture Plants (Subpart PP)	No
Graphic Arts Industry: Publication Rotogravure Printing (Subpart QQ)	No
Pressure Sensitive Tape and Label Surface Coating Operations (Subpart RR)	No
Industrial Surface Coating: Large Appliances (Subpart SS)	No
Metal Coil Surface Coating (Subpart TT)	No
Asphalt processing and asphalt roofing manufacture (Subpart UU)	No
Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (Subpart VV)	No
Beverage Can Surface Coating Industry (Subpart WW)	No
Bulk Gasoline Terminals (Subpart XX)	No
New Residential Wood Heaters (Subpart AAA)	No
Rubber Tire Manufacturing Industry (Subpart BBB)	No
Polymer Manufacturing Industry (Subpart DDD)	No
Flexible Vinyl and Urethane Coating and Printing (Subpart FFF)	No
Equipment Leaks of VOC in Petroleum Refineries (Subpart GGG)	No
Synthetic Fiber Production Facilities (Subpart HHH)	No
Synthetic Organic Chemical Manufacturing Industry Air Oxidation Unit Processes (Subpart III)	No
Petroleum Dry Cleaners (Subpart JJJ)	No
Onshore Natural Gas Processing Plants (Subpart KKK)	No
Onshore Natural Gas Processing: SO ₂ Emissions (Subpart LLL)	No
Synthetic Organic Chemical Manufacturing Industry Distillation Operations (Subpart NNN)	No
Nonmetallic Mineral Processing Plants (Subpart OOO)	No
Wool Fiberglass Insulation Manufacturing Plants (Subpart PPP)	No
Petroleum Refinery Wastewater System VOC Emissions (Subpart QQQ)	No
Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes (Subpart RRR)	No
Magnetic Tape Coating Facilities (Subpart SSS)	No
Industrial surface coating: Plastic parts for business machines (Subpart TTT)	No

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
Calciners and Dryers in Mineral Industries (Subpart UUU)	No
Polymeric Coating of Supporting Substrates Facilities (Subpart VVV)	No
Standards of Performance for Municipal Solid Waste Landfills (Subpart WWW)	No
Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 (Subpart AAAA)	No
Subpart BBBB - Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999	No
Subpart CCCC -- Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	No
Subpart DDDD -- Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999	No
Subpart FFFF--Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units that Commenced Construction On or Before December 9, 2004	No
Subpart HHHH--Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units	No

APPLICABILITY EXPLANATION CODES

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B - Rules governing ambient air quality standards and/or monitoring or definitions of criteria for air pollution emergency purposes and do not apply to individual sources.

C - Facility is not in this source category.

5.4 APPLICABLE AND INAPPLICABLE NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (40 CFR PART 61)

Table 5.4-1 cites the applicable and inapplicable National Emission Standards for Hazardous Air Pollutants given in 40 CFR Part 61.

Table 5.4-1 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

Rule Description - 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants	Applicable?
Subpart A--General Provisions.	No
Subpart B--Radon Emissions from Underground Uranium Mines.	No
Subpart C--Beryllium.	No
Subpart D--Beryllium Rocket Motor Firing.	No
Subpart E--Mercury.	No
Subpart F--Vinyl Chloride.	No
Subpart H--Emissions of Radionuclides other than Radon from Department of Energy Facilities.	No
Subpart I--Radionuclide Emissions from Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities not covered by Subpart H.	No
Subpart J--Equipment Leaks (Fugitive Emission Sources) of Benzene.	No
Subpart K--Radionuclide Emissions from Elemental Phosphorus Plants.	No
Subpart L--Benzene Emissions from Coke By-Product Recovery Plants.	No
Subpart M--Asbestos.	No
Subpart N--Inorganic Arsenic Emissions from Glass Manufacturing Plants.	No
Subpart O--Inorganic Arsenic Emissions from Primary Copper Smelters.	No
Subpart P--Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities.	No

Rule Description - 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants	Applicable?
Subpart Q--Radon Emissions from Department of Energy Facilities.	No
Subpart R--Radon Emission from Phosphogypsum Stacks.	No
Subpart T--Radon Emissions from the Disposal of Uranium Mill Tailings.	No
Subpart V--Equipment Leaks (Fugitive Emission Sources).	No
Subpart W--Radon Emissions from Operating Mill Tailings.	No
Subpart Y--Benzene Emissions from Benzene Storage Vessels.	No
Subpart BB--Benzene Emission from Benzene Transfer Operations.	No
Subpart FF--Benzene Waste Operations.	No

5.5 APPLICABLE AND INAPPLICABLE NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (40 CFR PART 63)

Table 5.5-1 cites the applicable and inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories given in 40 CFR Part 63.

Table 5.5-1 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)

Rule Description - 40 CFR Part 63- National Emission Standards for Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Subpart A – General Provisions	No – not in source category
Subpart F – SOCFI	No – not in source category
Subpart G – SOCFI – Process Vents, Storage Vessels, Transfer Operations	No – not in source category
Subpart H – SOCFI – Equipment Leaks	No – not in source category
Subpart I – Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	No – not in source category
Subpart J – Polyvinyl Chloride and Copolymers Production	No – not in source category
Subpart L – Coke Oven Batteries	No – not in source category
Subpart M – Dry Cleaning Facilities Using Perchloroethylene	No – not in source category
Subpart N – Nard and Decorative Electroplating and Anodizing	No – not in source category
Subpart O – Ethylene Oxide Sterilization	No – not in source category
Subpart Q – Industrial Process Cooling Towers	No – not in source category
Subpart R – Gasoline Distribution (Bulk Gasoline Terminals and Pipeline Breakout Stations)	No – not in source category
Subpart S – Pulp and Paper Industry	No – not in source category
Subpart T – Halogenated Solvent Cleaning	No – not in source category
Subpart U – Group I Polymers and Resins	No – not in source category
Subpart W – Epoxy Resins and Non-Nylon Polyamides Production	No – not in source category
Subpart X – Secondary Lead Smelting	No – not in source category
Subpart Y – Marine Tank Vessel Loading Operations	No – not in source category
Subpart AA – National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants	No – not in source category
Subpart BB – National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants	No – not in source category; see Subsection 4.6
Subpart CC – National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries	No – not in source category
Subpart DD – National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations	No – not in source category
Subpart EE – National Emission Standards for Magnetic Tape Manufacturing Operations	No – not in source category
Subpart GG – National Emission Standards for Aerospace Manufacturing and Rework Facilities	No – not in source category
Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas	No – not in source category

Rule Description - 40 CFR Part 63- National Emission Standards for Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Production Facilities	
Subpart II – National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)	No – not in source category
Subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations	No – not in source category
Subpart KK – National Emission Standards for the Printing and Publishing Industry	No – not in source category
Subpart LL – National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants	No – not in source category
Subpart MM – National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills	No – not in source category
Subpart OO – National Emission Standards for Tanks – Level 1	No – not in source category
Subpart PP – National Emission Standards for Containers	No – not in source category
Subpart QQ – National Emission Standards for Surface Impoundments	No – not in source category
Subpart RR – National Emission Standards for Individual Drain Systems	No – not in source category
Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process	No – not in source category
Subpart TT – National Emission Standards for Equipment Leaks – Control Level 1	No – not in source category
Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards	No – not in source category
Subpart VV – National Emission Standards for Oil-Water Separators and Organic-Water Separators	No – not in source category
Subpart WW – National Emission Standards for Storage Vessels (Tanks) – Control Level 2	No – not in source category
Subpart XX -- National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations	No – not in source category
Subpart YY – National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards	No – not in source category
Subpart CCC – National Emission Standards for Hazardous Air Pollutants for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Units	No – not in source category
Subpart DDD – National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production	No – not in source category
Subpart EEE—National Emission Standards for Hazardous Air Pollutants from Waste Combustors	No – not in source category
Subpart GGG – Pharmaceuticals Production	No – not in source category
Subpart HHH – Natural Gas Transmission and Storage	No – not in source category
Subpart III – Flexible Polyurethane Foam Production	No – not in source category
Subpart JJJ – Polymer and resins II	No – not in source category
Subpart LLL – Portland Cement Manufacturing	No – not in source category
Subpart MMM – Pesticide Active Ingredient Production	No – not in source category
Subpart NNN – Wool Fiberglass Manufacturing	No – not in source category
Subpart OOO – Polymers and Resins, III Amino Resins, Phenolic Resins	No – not in source category
Subpart PPP – Polyether Polyols Production	No – not in source category
Subpart QQQ – Primary Copper	No – not in source category
Subpart RRR – Secondary Aluminum	No – not in source category
Subpart TTT – Primary Lead Smelting	No – not in source category
Subpart UUU – Petroleum Refineries	No – not in source category
Subpart VVV – POTWs	No – not in source category
Subpart XXX – Ferroalloys Production	No – not in source category
Subpart AAAA – Municipal Solid Waste Landfills	No – not in source category
Subpart CCCC – Manufacturing Nutritional Yeast	No – not in source category
Subpart DDDD—National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products	No – not in source category
Subpart EEEE--National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	No – not in source category
Subpart FFFF--National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing	No – not in source category
Subpart GGGG – Solvent Extraction for Vegetable Oil	No – not in source category
Subpart HHHH – Wet Formed Fiberglass Mat Production	No – not in source category
Subpart IIII—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light Duty Trucks	No – not in source category
Subpart JJJJ – Paper and Other Web	No – not in source category
Subpart KKKK--National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans	No – not in source category
Subpart MMMM--National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products	No – not in source category
Subpart NNNN--National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances	No – not in source category
Subpart OOOO--National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and	No – not in source category

Rule Description - 40 CFR Part 63- National Emission Standards for Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Dyeing of Fabrics and Other Textiles	
Subpart PPPP--National Emission Standards for Hazardous Air Pollutants: Printing for Surface Coating of Plastic Parts and Products	No – not in source category
Subpart QQQQ--National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products	No – not in source category
Subpart RRRR--National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture	No – not in source category
Subpart SSSS – National Emission Standards for Hazardous Air Pollutants: Surface coating of Metal Coil	No – not in source category
Subpart TTTT – National Emission Standards for Hazardous Air Pollutants for Leather Finishing Operations	No – not in source category
Subpart UUUU – National Emission Standards for Hazardous Air Pollutants for Cellulose Production Manufacturing	No – not in source category
Subpart VVVV – National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing	No – not in source category
Subpart WWW--National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production	No – not in source category
Subpart XXXX – National Emission Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing	No – not in source category
Subpart YYYY--National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	No – not in source category
Subpart ZZZZ--National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal combustion Engines	No – not in source category
Subpart AAAAA--National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants	No – not in source category
Subpart BBBB--National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing	No – not in source category
Subpart CCCCC--National Emission Standards for Hazardous Air Pollutants for Coke Ovens Pushing, Quenching, and Battery Stacks	No – not in source category
Subpart DDDDD--Methodology and Criteria for Demonstrating Eligibility for the Health Based Compliance Alternatives	Nonpareil is not major for HAPs
Subpart EEEEE--National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries	No – not in source category
Subpart FFFFF--National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities	No – not in source category
Subpart GGGGG--National Emission Standards for Hazardous Air Pollutants: Site Remediation	No – not in source category
Subpart HHHHH--National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Factories	No – not in source category
Subpart IIII--National Emission Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Chlor-Alkali Plants	No – not in source category
Subpart JJJJ--National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing	No – not in source category
Subpart KKKKK--National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing	No – not in source category
Subpart LLLLL--National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing	No – not in source category
Subpart MMMM-- National Emission Standards for Hazardous Air Pollutants: Flexible Polyurethane Foam Fabrication Operations	No – not in source category
Subpart NNNN--National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production	No – not in source category
Subpart PPPP--National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stands	No – not in source category
Subpart QQQQ – National Emission Standards for Hazardous Air Pollutants for Friction Materials Manufacturing Facilities	No – not in source category
Subpart RRRR-- National Emission Standards for Hazardous Air Pollutants: Taconite Ore Processing	No – not in source category
Subpart SSSS-- National Emission Standards for Hazardous Air Pollutants for Refractory Products Manufacturing	No – not in source category
Subpart TTTT--National Emission Standards for Hazardous Air Pollutants for Primary Magnesium Refining	No – not in source category

5.6 SPECIFIC APPLICABLE AND INAPPLICABLE REQUIREMENT DISCUSSION

Table 5.6-1 below discusses in more detail the specific applicable and inapplicable requirements for Nonpareil:

Table 5.6-1 Specific Applicable and Inapplicable Requirements

Citation	Explanation of Applicability
40 CFR 60.40c Subpart Dc. Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.	<p>60.40c(a): Subpart Dc applies to steam generating units that have a heat input capacity of less than 100 MMBtu/hr and constructed after 1989. The existing West Processing boiler was manufactured in 1962 therefore, NSPS does not apply to this boiler. The new East Processing boiler was constructed in 1998 with a maximum steam generating capacity of 52.4 MMBtu/hr therefore this NSPS Subpart applies.</p> <p>Nonpareil will comply with the following subpart Dc sections:</p> <p>§ 60.42c(d) Standard for sulfur dioxide. Nonpareil will comply with this requirement by only combusting fuel oil with a sulfur content less than 0.5 weight percent.</p> <p>§ 60.43c(c): Opacity shall not exceed 20% (6-minute average), except for one 6-minute period per hour of not more than 27% opacity. Nonpareil will comply with this requirement as described in § 60.45c(h).</p> <p>§ 60.43c(e)(1): Particulate matter shall not be discharged into the atmosphere in excess of 0.030 lb/MMBtu heat input. According to § 60.43c(e)(4) Nonpareil is not subject to the PM limit because they will only combust fuel oil with a sulfur content less than 0.5 weight percent.</p> <p>§ 60.44c(h): Nonpareil will demonstrate compliance for sulfur dioxide based on fuel supplier certification. Nonpareil will follow the procedure outlined in § 60.48c(f).</p> <p>§ 60.45c(h): Nonpareil will demonstrate compliance for opacity standards and conduct an initial performance test as stated in this section.</p> <p>§ 60.48c: Reporting and recordkeeping requirements. Nonpareil will comply with the applicable reporting and recordkeeping requirements outlined in this subpart.</p>
40 CFR 60.40b Subpart K. Standards of Performance for Volatile Organic Liquid Vessels for which Construction, Reconstruction or Modification Commenced After June 11, 1973 and prior to May 19, 1978.	<p>The following tanks are not subject to 40 CFR 60.110, Subpart K, because they meet the requirements for exemption:</p> <ul style="list-style-type: none"> Boiler Fuel Oil # 6 Supply Tank – 10,000 gallons Fuel Oil Reserve Tank – 10,000 gallons
40 CFR 60.40b Subpart Kb. Standards of Performance for Volatile Organic Liquid Vessels for which Construction, Reconstruction or Modification Commenced After July 23, 1984.	<p>The following tanks are not subject to 40 CFR 60.110b, Subpart Kb, because they meet the requirements for exemption:</p> <ul style="list-style-type: none"> IPP Diesel Fuel Tank – 10,000 gallons Gasoline Fuel Tank – 1,000 gallons Jet Fuel “A” Tank – 10,000 gallons

6.0 EMISSIONS INFORMATION AND DOCUMENTATION

6.1 EMISSION INVENTORY

Detailed emission calculations are shown in this section for both point and fugitive sources. All pound per hour and ton per year emissions are identical to those used to determine the emission limits included in the April 14, 2008 PTC permit application, except for the PM-10 emissions. The PM-10 facility wide PTE submitted in the April 14, 2008 application was 163.01 ton/yr and should be 164.99 ton/yr as shown in this application. This discrepancy stems from the "Potato Processing and NG Combustion" PM-10 emissions used in Table 3-3 of April 14, 2008 PTC application. The value of 142 ton/yr PM-10 was taken from Table 5.2 of the Tier II Permit #P-050300 SOB which is inconsistent with the emission limits defined in Table 6.2 of Permit #P-050300. The correct PM-10 emission limit for "Potato Processing and NG Combustion" should be 143.9 ton/yr.

The maximum potential to emit is based on the maximum west processing boiler fuel consumption of 2,011,500 gallons per year of residual fuel oil and the new east processing boiler combusting natural gas 8,760 hours per year. Nonpareil is requesting limits on fuel throughputs, not operating hours per year. Note that only one boiler will operate with fuel oil at a time and maximum annual emissions result from the west processing boiler combusting residual fuel oil while the east processing boiler combusts natural gas; Nonpareil is requesting fuel restrictions on each boiler individually.

CRITERIA POLLUTANTS POTENTIAL TO EMIT - NONPAREIL

Description	Fuel Combustion of Natural Gas and Residual Fuel Oil #6											
	NOx Emissions		CO Emissions		PM-10 Emissions		SOx Emissions		VOC Emissions		Lead Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Processing East Boiler	2.618	11.467	4.398	19.264	0.398	1.743	0.031	0.138	0.288	1.261	2.62E-05	1.15E-04
Processing West Boiler ^a	14.850	56.617	3.335	14.609	5.119	19.267	66.542	247.883	0.346	1.430	4.08E-04	0.002
Starch Dryer	0.412	1.804	0.346	1.515	0.031	0.137	0.002	0.011	0.023	0.099	2.06E-06	9.02E-06
Scratch Mash Dryer	0.539	2.362	0.453	1.984	0.041	0.179	0.003	0.014	0.030	0.130	2.70E-06	1.18E-05
Scratch Mash Air Makeup	0.490	2.147	0.412	1.804	0.037	0.163	0.003	0.013	0.027	0.118	2.45E-06	1.07E-05
Reblend Room Air Makeup	0.098	0.429	0.082	0.361	0.007	0.033	0.001	0.003	0.005	0.024	4.90E-07	2.15E-06
Building #3 Air Makeup	0.294	1.288	0.247	1.082	0.022	0.098	0.002	0.008	0.016	0.071	1.47E-06	6.44E-06
Building #4 Air Makeup	0.980	4.294	0.824	3.607	0.075	0.326	0.006	0.026	0.054	0.236	4.90E-06	2.15E-05
Dehydration North Boiler	1.029	4.509	0.865	3.787	0.078	0.343	0.006	0.027	0.057	0.248	5.15E-06	2.25E-05
Dehydration South Boiler	0.824	3.607	0.692	3.030	0.063	0.274	0.005	0.022	0.045	0.198	4.12E-06	1.80E-05
Dehydration Air Dryer #1 A Stage	0.627	2.748	0.527	2.309	0.048	0.209	0.004	0.016	0.035	0.151	3.14E-06	1.37E-05
Dehydration Air Dryer #1 B&C Stages	0.275	1.202	0.231	1.010	0.021	0.091	0.002	0.007	0.015	0.066	1.37E-06	6.01E-06
Dehydration Air Dryer #2 A Stage	0.627	2.748	0.527	2.309	0.048	0.209	0.004	0.016	0.035	0.151	3.14E-06	1.37E-05
Dehydration Air Dryer #2 B&C Stages	0.275	1.202	0.231	1.010	0.021	0.091	0.002	0.007	0.015	0.066	1.37E-06	6.01E-06
Dehydration Air Dryer #3 A Stage	0.627	2.748	0.527	2.309	0.048	0.209	0.004	0.016	0.035	0.151	3.14E-06	1.37E-05
Dehydration Air Dryer #3 B&C Stages	0.275	1.202	0.231	1.010	0.021	0.091	0.002	0.007	0.015	0.066	1.37E-06	6.01E-06
Dehydration Air Dryer #4 A Stage	0.468	2.048	0.393	1.721	0.036	0.156	0.003	0.012	0.026	0.113	2.34E-06	1.02E-05
Dehydration Air Dryer #4 B Stage	0.032	0.142	0.027	0.119	0.002	0.011	0.0002	0.001	0.002	0.008	1.62E-07	7.09E-07
Dehydration Air Dryer #4 C Stage	0.029	0.129	0.025	0.108	0.002	0.010	0.0002	0.001	0.002	0.007	1.47E-07	6.44E-07
Dehydration Air Dryer #5 A Stage	1.020	4.466	0.856	3.751	0.077	0.339	0.006	0.027	0.056	0.246	5.10E-06	2.23E-05
Dehydration Air Dryer #5 B Stage	0.314	1.374	0.264	1.154	0.024	0.104	0.002	0.008	0.017	0.076	1.57E-06	6.87E-06
Dehydration Air Dryer #5 C Stage	0.324	1.417	0.272	1.190	0.025	0.108	0.002	0.009	0.018	0.078	1.62E-06	7.09E-06
Wet Area Air Makeup	0.343	1.503	0.288	1.262	0.026	0.114	0.002	0.009	0.019	0.083	1.72E-06	7.51E-06
South Dryer Room 4&5 Air Makeup	0.490	2.147	0.412	1.804	0.037	0.163	0.003	0.013	0.027	0.118	2.45E-06	1.07E-05
South Dryer Room 4&5 Roof Air Makeup	0.490	2.147	0.412	1.804	0.037	0.163	0.003	0.013	0.027	0.118	2.45E-06	1.07E-05
Inspection Room Roof Air Makeup	0.343	1.503	0.288	1.262	0.026	0.114	0.002	0.009	0.019	0.083	1.72E-06	7.51E-06
Dehydration Research Dryer	0.086	0.378	0.072	0.317	0.007	0.029	0.001	0.002	0.005	0.021	4.31E-07	1.89E-06

^aT/yr is based on 7,450 hr/yr operating on #6 fuel oil and the remaining 1,310 hr/yr operating on NG.

Description	Particulate Equipment											
	NOx Emissions		CO Emissions		PM-10 Emissions		SOx Emissions		VOC Emissions		Lead Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Starch Dryer					0.33	1.47						
Scratch Mash Dryers					2.52	11.04						
Processing Peeler Exhaust					0.16	0.70						
Flaker Nos. 1					3.79	16.62						
Flaker Nos. 2					3.79	16.62						
Flaker Nos. 3					3.04	13.29						
Flaker Nos. 4					3.04	13.29						
Flaker Nos. 5					3.04	13.29						
Dehydration Air Dryer #1 A Stage					1.42	6.22						
Dehydration Air Dryer #1 B&C Stages					0.63	2.74						
Dehydration Air Dryer #2 A Stage					1.42	6.22						
Dehydration Air Dryer #2 B&C Stages					0.63	2.74						
Dehydration Air Dryer #3 A Stage					1.42	6.22						
Dehydration Air Dryer #3 B&C Stages					0.63	2.74						
Dehydration Air Dryer #4 A Stage					1.07	4.66						
Dehydration Air Dryer #4 B Stage					0.47	2.05						
Dehydration Air Dryer #4 C Stage					0.47	2.05						
Dehydration Air Dryer #5 A Stage					1.70	7.46						
Dehydration Air Dryer #5 B Stage					0.75	3.29						
Dehydration Air Dryer #5 C Stage					0.75	3.29						
Dehydration Bin Dryer					0.63	2.74						
Dehydration Research Dryer					0.18	0.77						
Dehydration Steam Peeler					0.16	0.70						
Scratch Mash Baghouse					0.0004	0.0019						
Grinding Circuit No. 1 Baghouse					0.0004	0.0019						
Starch Plant Baghouse					0.0009	0.0038						
Grinding Circuit No. 2 Baghouse					0.0006	0.0025						
Flake Baghouse					0.0012	0.0053						
Packing Baghouse No. 1					0.0001	0.0005						
Packing Baghouse No. 2					0.0003	0.0013						
Crush-room Baghouse No. 1					0.0001	0.0005						
Crush-room Baghouse No. 2					0.0003	0.0013						

Description	Tanks											
	NOx Emissions		CO Emissions		PM-10 Emissions		SOx Emissions		VOC Emissions		Lead Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
IPP Diesel Fuel Tank										0.0013		
Boiler #6 Fuel Oil Supply Tank										0.00002		
Fuel Oil Reserve Tank										0.00004		
Gasoline Fuel Tank										0.086		
Jet Fuel "A" Tank										0.035		

CRITERIA EMISSIONS - NATURAL GAS COMBUSTION - NONPAREIL

Emission Factors

NOx	50 lb/10 ⁶ scf	AP-42, Table 1.4-1, 1998, Low NOx Burners
NOx	100 lb/10 ⁶ scf	AP-42, Table 1.4-1, 1998
CO	84 lb/10 ⁶ scf	AP-42, Table 1.4-1, 1998
PM-10	7.6 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998
SOx	0.6 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998
VOC	5.5 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998
Lead	0.0005 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998

Description	Capacity (MMBtu/hr)	Throughput (scf/hr)	Pounds per Hour					
			NOx Emissions (lb/hr)	CO Emissions (lb/hr)	PM-10 Emissions (lb/hr)	SOx Emissions (lb/hr)	VOC Emissions (lb/hr)	Lead Emissions (lb/hr)
Processing East Boiler ^a	52.4	52,360	2.6180	4.3982	0.3979	0.0314	0.2880	0.0000262
Processing West Boiler ^a	40.5	39,705.9	1.9853	3.3353	0.3018	0.0238	0.2184	0.0000199
Starch Dryer	4.2	4,117.6	0.4118	0.3459	0.0313	0.0025	0.0226	0.0000021
Scratch Match Dryer	5.5	5,392.2	0.5392	0.4529	0.0410	0.0032	0.0297	0.0000027
Scratch Match Air Makeup	5	4,902.0	0.4902	0.4118	0.0373	0.0029	0.0270	0.0000025
Reblend Room Air Makeup	1	980.4	0.0980	0.0824	0.0075	0.0006	0.0054	0.0000005
Building #3 Air Makeup	3	2,941.2	0.2941	0.2471	0.0224	0.0018	0.0162	0.0000015
Building #4 Air Makeup	10	9,803.9	0.9804	0.8235	0.0745	0.0059	0.0539	0.0000049
Dehydration North Boiler	10.5	10,294.1	1.0294	0.8647	0.0782	0.0062	0.0566	0.0000051
Dehydration South Boiler	8.4	8,235.3	0.8235	0.6918	0.0626	0.0049	0.0453	0.0000041
Dryer #1 A Stage	6.4	6,274.5	0.6275	0.5271	0.0477	0.0038	0.0345	0.0000031
Dryer #1 B&C Stages	2.8	2,745.1	0.2745	0.2306	0.0209	0.0016	0.0151	0.0000014
Dryer #2 A Stage	6.4	6,274.5	0.6275	0.5271	0.0477	0.0038	0.0345	0.0000031
Dryer #2 B&C Stages	2.8	2,745.1	0.2745	0.2306	0.0209	0.0016	0.0151	0.0000014
Dryer #3 A Stage	6.4	6,274.5	0.6275	0.5271	0.0477	0.0038	0.0345	0.0000031
Dryer #3 B&C Stages	2.8	2,745.1	0.2745	0.2306	0.0209	0.0016	0.0151	0.0000014
Dryer #4 A Stage	4.77	4,676.5	0.4676	0.3928	0.0355	0.0028	0.0257	0.0000023
Dryer #4 B Stage	0.33	323.5	0.0324	0.0272	0.0025	0.0002	0.0018	0.0000002
Dryer #4 C Stage	0.3	294.1	0.0294	0.0247	0.0022	0.0002	0.0016	0.0000001
Dryer #5 A Stage	10.4	10,196.1	1.0196	0.8565	0.0775	0.0061	0.0561	0.0000051
Dryer #5 B Stage	3.2	3,137.3	0.3137	0.2635	0.0238	0.0019	0.0173	0.0000016
Dryer #5 C Stage	3.3	3,235.3	0.3235	0.2718	0.0246	0.0019	0.0178	0.0000016
Wet Area Air Makeup	3.5	3,431.4	0.3431	0.2882	0.0261	0.0021	0.0189	0.0000017
South Dryer Room 4&5 Air Makeup	5	4,902.0	0.4902	0.4118	0.0373	0.0029	0.0270	0.0000025
South Dryer Room 4&5 Roof Air Makeup	5	4,902.0	0.4902	0.4118	0.0373	0.0029	0.0270	0.0000025
Inspection Room Roof Air Makeup	3.5	3,431.4	0.3431	0.2882	0.0261	0.0021	0.0189	0.0000017
Dehydration Research Dryer	0.88	862.7	0.0863	0.0725	0.0066	0.0005	0.0047	0.0000004
TOTAL	2.1E+02	2.1E+05	1.59E+01	1.72E+01	1.56E+00	1.23E-01	1.13E+00	1.03E-04

^aUtilize Low NOx Burners

CRITERIA EMISSIONS - NATURAL GAS COMBUSTION - NONPAREIL

Emission Factors

NOx	50 lb/10 ⁶ scf	AP-42, Table 1.4-1, 1998, Low NOx Burners
NOx	100 lb/10 ⁶ scf	AP-42, Table 1.4-1, 1998
CO	84 lb/10 ⁶ scf	AP-42, Table 1.4-1, 1998
PM-10	7.6 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998
SOx	0.6 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998
VOC	5.5 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998
Lead	0.0005 lb/10 ⁶ scf	AP-42, Table 1.4-2, 1998

Description	Capacity (MMBtu/hr)	Throughput (scf/yr)	Ton per Year					
			NOx Emissions (T/yr)	CO Emissions (T/yr)	PM-10 Emissions (T/yr)	SOx Emissions (T/yr)	VOC Emissions (T/yr)	Lead Emissions (T/yr)
Processing East Boiler ^a	52.4	458,673,600.0	11.4668	19.2643	1.7430	0.1376	1.2614	0.0001
Processing West Boiler ^a	40.5	347,823,529.4	8.6956	14.6086	1.3217	0.1043	0.9565	0.00009
Starch Dryer	4.2	36,070,588.2	1.8035	1.5150	0.1371	0.0108	0.0992	0.00001
Scratch Match Dryer	5.5	47,235,294.1	2.3618	1.9839	0.1795	0.0142	0.1299	0.00001
Scratch Match Air Makeup	5	42,941,176.5	2.1471	1.8035	0.1632	0.0129	0.1181	0.00001
Reblend Room Air Makeup	1	8,588,235.3	0.4294	0.3607	0.0326	0.0026	0.0236	0.00000
Building #3 Air Makeup	3	25,764,705.9	1.2882	1.0821	0.0979	0.0077	0.0709	0.00001
Building #4 Air Makeup	10	85,882,352.9	4.2941	3.6071	0.3264	0.0258	0.2362	0.00002
Dehydration North Boiler	10.5	90,176,470.6	4.5088	3.7874	0.3427	0.0271	0.2480	0.00002
Dehydration South Boiler	8.4	72,141,176.5	3.6071	3.0299	0.2741	0.0216	0.1984	0.00002
Dryer #1 A Stage	6.4	54,964,705.9	2.7482	2.3085	0.2089	0.0165	0.1512	0.00001
Dryer #1 B&C Stages	2.8	24,047,058.8	1.2024	1.0100	0.0914	0.0072	0.0661	0.00001
Dryer #2 A Stage	6.4	54,964,705.9	2.7482	2.3085	0.2089	0.0165	0.1512	0.00001
Dryer #2 B&C Stages	2.8	24,047,058.8	1.2024	1.0100	0.0914	0.0072	0.0661	0.00001
Dryer #3 A Stage	6.4	54,964,705.9	2.7482	2.3085	0.2089	0.0165	0.1512	0.00001
Dryer #3 B&C Stages	2.8	24,047,058.8	1.2024	1.0100	0.0914	0.0072	0.0661	0.00001
Dryer #4 A Stage	4.77	40,965,882.4	2.0483	1.7206	0.1557	0.0123	0.1127	0.00001
Dryer #4 B Stage	0.33	2,834,117.6	0.1417	0.1190	0.0108	0.0009	0.0078	0.00000
Dryer #4 C Stage	0.3	2,576,470.6	0.1288	0.1082	0.0098	0.0008	0.0071	0.00000
Dryer #5 A Stage	10.4	89,317,647.1	4.4659	3.7513	0.3394	0.0268	0.2456	0.00002
Dryer #5 B Stage	3.2	27,482,352.9	1.3741	1.1543	0.1044	0.0082	0.0756	0.00001
Dryer #5 C Stage	3.3	28,341,176.5	1.4171	1.1903	0.1077	0.0085	0.0779	0.00001
Wet Area Air Makeup	3.5	30,058,823.5	1.5029	1.2625	0.1142	0.0090	0.0827	0.00001
South Dryer Room 4&5 Air Makeup	5	42,941,176.5	2.1471	1.8035	0.1632	0.0129	0.1181	0.00001
South Dryer Room 4&5 Roof Air Makeup	5	42,941,176.5	2.1471	1.8035	0.1632	0.0129	0.1181	0.00001
Inspection Room Roof Air Makeup	3.5	30,058,823.5	1.5029	1.2625	0.1142	0.0090	0.0827	0.00001
Dehydration Research Dryer	0.88	7,557,647.1	0.3779	0.3174	0.0287	0.0023	0.0208	0.00000
TOTAL	2.1E+02	1.8E+09	7.0E+01	7.5E+01	6.8E+00	5.4E-01	4.9E+00	4.5E-04

^aUtilize Low NOx Burners

CRITERIA EMISSIONS - RESIDUAL FUEL OIL # 6 or DISTILLATE #2 COMBUSTION - NONPAREIL

#6 FUEL OIL Emission Factors

NOx	55 lb/10 ³ gal	AP-42, Table 1.3-1, 1998	
CO	5 lb/10 ³ gal	AP-42, Table 1.3-1, 1998	
PM-10	18.96 lb/10 ³ gal	AP-42, Table 1.3-1 (Errata used) and Table 1.3-2, 1998	
SO ₂	157 *S lb/10 ³ gal	AP-42, Table 1.3-1, 1998	S= 1.55
SO ₃	2 *S lb/10 ³ gal	AP-42, Table 1.3-1, 1998	S= 1.55
VOC	1.28 lb/10 ³ gal	AP-42, Table 1.3-3, 1998	
Nickel	0.074 lb/10 ³ gal	AP-42, Table 1.3-11, 1998	
Lead	0.00151 lb/10 ³ gal	AP-42, Table 1.3-11, 1998	

#2 FUEL OIL Emission Factors

NOx	20 lb/10 ³ gal	AP-42, Table 1.3-1, 1998	
CO	5 lb/10 ³ gal	AP-42, Table 1.3-1, 1998	
PM-10	3.3 lb/10 ³ gal	AP-42, Table 1.3-1 and Table 1.3-2, 1998	
SO ₂	142 *S lb/10 ³ gal	AP-42, Table 1.3-1, 1998	S= 0.5
SO ₃	2 *S lb/10 ³ gal	AP-42, Table 1.3-1, 1998	S= 0.5
VOC	0.252 lb/10 ³ gal	AP-42, Table 1.3-3, 1998	
Nickel	3 lb/10 ³ Btu	AP-42, Table 1.3-10, 1998	
Lead	9 lb/10 ³ Btu	AP-42, Table 1.3-10, 1998	

Description	Capacity (MMBtu/hr)	Throughput (gal/hr) ^c	lb/hr						
			NOx Emissions (lb/hr)	CO Emissions (lb/hr)	PM-10 Emissions (lb/hr)	SOx Emissions (lb/hr) ^a	VOC Emissions (lb/hr)	Lead Emissions (lb/hr)	Nickel Emissions (lb/hr)
Processing East Boiler	47.6	340	6.80	1.70	1.12	24.48	0.086	0.0004	0.0001
Processing West Boiler	40.5	270	14.85	1.35	5.12	66.5	0.346	0.0004	0.0200

^aIs the sum of SO₂ and SO₃ emissions

Description	Capacity (MMBtu/hr)	Throughput (gal/yr)	Ton per Year- Portion of yr operating on fuel oil ^b						
			NOx Emissions (T/yr)	CO Emissions (T/yr)	PM-10 Emissions (T/yr)	SOx Emissions (T/yr) ^a	VOC Emissions (T/yr)	Lead Emissions (T/yr)	Nickel Emissions (T/yr)
Processing East Boiler	47.6	2,533,000	25.3	6.3	4.2	91.188	0.3	0.0016	0.0005
Processing West Boiler	40.5	2,011,500	55.3	5.0	19.1	247.9	1.3	0.0015	0.07443

^aIs the sum of SO₂ and SO₃ emissions

^bBased on 7,450 hr/yr operating on fuel oil only

^cNew East Boiler Fuel Calculation: 2,400 lb fuel/hr (per manf. data) ÷ 7.05 lb fuel/gal (AP-42) = 340 gal fuel/hr

PARTICULATE EMISSIONS - DRYERS, FLAKERS, PEELERS AND BAGHOUSE EQUIPMENT - NONPAREIL

Description	Throughput (lb/hr dry)	Emission Factor (lb PM/ton)	EF Reference	PM Emissions (lb/hr)	PM Emissions (T/yr) ^a	PM-10 Emissions (lb/hr)	PM-10 Emissions (T/yr) ^a
Starch Dryer	1,135	0.59	AP-42 Table 9.9.7-1/Tier II OP 011-00027, Tech Memo. PM-10 emissions assume 44% of PM is PM-10 (AP-42, Appendix B.1-9.9.2).	0.33	1.47	0.335	1.47
Scratch Mash Dryers	1,800	2.8	Mass Balance - Tier II OP 011-00027, Tech Memo. PM-10 emissions assume 44% of PM is PM-10 (AP-42, Appendix B.1-9.9.2).	2.52	11.04	2.52	11.04
Processing Peeler Exhaust	5,000	0.064	Mass Balance - Tier II OP 011-00027, Tech Memo	0.16	0.70	0.16	0.70
Flaker Nos. 1	1,250	6.07	Nonpareil Source Test	3.79	16.62	3.79	16.62
Flaker Nos. 2	1,250	6.07	Nonpareil Source Test	3.79	16.62	3.79	16.62
Flaker Nos. 3	1,000	6.07	Nonpareil Source Test	3.04	13.29	3.04	13.29
Flaker Nos. 4	1,000	6.07	Nonpareil Source Test	3.04	13.29	3.04	13.29
Flaker Nos. 5	1,000	6.07	Nonpareil Source Test	3.04	13.29	3.04	13.29
Dehydration Air Dryer #1 A Stage	1,000	2.84	Nonpareil Source Test	1.42	6.22	1.42	6.22
Dehydration Air Dryer #1 B&C Stages	1,000	1.25	Nonpareil Source Test	0.63	2.74	0.63	2.74
Dehydration Air Dryer #2 A Stage	1,000	2.84	Nonpareil Source Test	1.42	6.22	1.42	6.22
Dehydration Air Dryer #2 B&C Stages	1,000	1.25	Nonpareil Source Test	0.63	2.74	0.63	2.74
Dehydration Air Dryer #3 A Stage	1,000	2.84	Nonpareil Source Test	1.42	6.22	1.42	6.22
Dehydration Air Dryer #3 B&C Stages	1,000	1.25	Nonpareil Source Test	0.63	2.74	0.63	2.74
Dehydration Air Dryer #4 A Stage	750	2.84	Nonpareil Source Test	1.07	4.66	1.07	4.66
Dehydration Air Dryer #4 B Stage	750	1.25	Nonpareil Source Test	0.47	2.05	0.47	2.05
Dehydration Air Dryer #4 C Stage	750	1.25	Nonpareil Source Test	0.47	2.05	0.47	2.05
Dehydration Air Dryer #5 A Stage	1,200	2.84	Nonpareil Source Test	1.70	7.46	1.70	7.46
Dehydration Air Dryer #5 B Stage	1,200	1.25	Nonpareil Source Test	0.75	3.29	0.75	3.29
Dehydration Air Dryer #5 C Stage	1,200	1.25	Nonpareil Source Test	0.75	3.29	0.75	3.29
Dehydration Bin Dryer ^b	1,000	1.25	2004 Source Test. PM-10 emissions assume 44% of PM is PM-10 (AP-42, Appendix B.1-9.9.2).	0.63	2.74	0.625	2.74
Dehydration Research Dryer	125	2.8	Mass Balance - Tier II OP 011-00027, Tech Memo	0.18	0.77	0.175	0.77
Dehydration Steam Peeler	5,000	0.064	Mass Balance - Tier II OP 011-00027, Tech Memo	0.16	0.70	0.16	0.70
TOTAL	31,410			32.01	140.20	32.01	140.20

^a Based on 8,760 hours per year.

^b The Dehydration Bin Dryer process closely resembles the Dehydration Air Dryers Stage C.

Description	Throughput (ACF/hr)	Emission Factor (lb PM/ACF) ^a	EF Reference	PM Emissions (lb/hr)	PM Emissions (T/yr) ^b	PM-10 Emissions (lb/hr)	PM-10 Emissions (T/yr) ^b
Scratch Mash Baghouse	150,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00043	0.00188	0.00043	0.00188
Grinding Circuit No. 1 Baghouse	150,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00043	0.00188	0.00043	0.00188
Starch Plant Baghouse	300,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00086	0.00377	0.00086	0.00377
Grinding Circuit No. 2 Baghouse	201,600	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00058	0.00253	0.00058	0.00253
Flake Baghouse	420,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00120	0.00527	0.00120	0.00527
Packing Baghouse No. 1	37,800	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00011	0.00047	0.00011	0.00047
Packing Baghouse No. 2	105,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00030	0.00132	0.00030	0.00132
Crush-room Baghouse No. 1	37,800	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00011	0.00047	0.00011	0.00047
Crush-room Baghouse No. 2	105,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00030	0.00132	0.00030	0.00132
TOTAL	1,507,200			0.004	0.02	0.004	0.02

^a EF = (0.000017 gr/dscf / 7000 gr/lb) * 1.18 dscf/acf = 2.87E-09. acf = dscf * (70 + 460)/528 * (29.92/25.422).

^b Based on 8,760 hours per year.

6.2 PROCESS WEIGHT

The following process weight calculations have been made:

Table 6-1 Process Weight Calculations

Source Description	Process Weight, PW (lb/hr)	PM-10 Emissions - Actual (lb/hr) ^a	Process Weight Rate Limitations - E (lb/hr)	In Compliance? (Y/N)
Starch Dryer	1,135	0.33	3.06	Y
Scratch Match Dryers	1,800	2.52	4.04	Y
Processing Peeler Exhaust	5,000	0.16	7.46	Y
Flaker Nos. 1	6,250	3.79	8.53	Y
Flaker Nos. 2	6,250	3.79	8.53	Y
Flaker Nos. 3	5,000	3.04	7.46	Y
Flaker Nos. 4	5,000	3.04	7.46	Y
Flaker Nos. 5	5,000	3.04	7.46	Y
Dehydration Air Dryer #1 A Stage	1,000	1.42	2.84	Y
Dehydration Air Dryer #1 B&C Stages	1,000	0.63	2.84	Y
Dehydration Air Dryer #2 A Stage	1,000	1.42	2.84	Y
Dehydration Air Dryer #2 B&C Stages	1,000	0.63	2.84	Y
Dehydration Air Dryer #3 A Stage	1,000	1.42	2.84	Y
Dehydration Air Dryer #3 B&C Stages	1,000	0.63	2.84	Y
Dehydration Air Dryer #4 A Stage	750	1.07	2.39	Y
Dehydration Air Dryer #4 B Stage	750	0.47	2.39	Y
Dehydration Air Dryer #4 C Stage	750	0.47	2.39	Y

Source Description	Process Weight, PW (lb/hr)	PM-10 Emissions - Actual (lb/hr) ^a	Process Weight Rate Limitations - E (lb/hr)	In Compliance? (Y/N)
Dehydration Air Dryer #5 A Stage	1,200	1.70	3.17	Y
Dehydration Air Dryer #5 B Stage	1,200	0.75	3.17	Y
Dehydration Air Dryer #5 C Stage	1,200	0.75	3.17	Y
Dehydration Bin Dryer	1,000	0.63	2.84	Y
Dehydration Research Dryer	125	0.18	0.82	Y
Dehydration Steam Peeler	5,000	0.16	7.46	Y

E = Emission Limit = $0.045(PW)^{0.60}$, if PW is less than 9,250 lb/hr.

*A ratio of 5:1 raw/final product was used for Flakers 1-5.

6.3 GRAIN LOADING

The tables 6-2 and 6-3 below show the estimated grain loading concentrations for natural gas and residual fuel oil, in accordance with IDAPA 58.01.01.676 and 677. All calculations have been corrected to Nonpareil's facility altitude of 4,498 feet and 3 percent oxygen. All natural gas combustion equipment is in compliance with the grain loading standard. The residual fuel oil table below shows that the east and west boilers demonstrate compliance with the grain loading standard. Nonpareil proposes to source test when burning fuel oil, if necessary.

Table 6-2 Grain Loading Emissions for Natural Gas Combustion

Source	PM Emission Factor (lb/scf) ^a	Gas Volume @ 3% O ₂ (dscf/MMBTU)	Combustion Volume of 1 cubic foot of gas (dscf/scf)	Grain Loading (grain/dscf)	Grain Loading Standard (grain/dscf)	Meet Grain Loading Standard?
Processing East Boiler	7.6×10^{-6}	1.198×10^4	12.58	4.23×10^{-3}	0.015	Yes
Processing West Boiler	7.6×10^{-6}	1.198×10^4	12.58	4.23×10^{-3}	0.015	Yes
Starch Dryer	7.6×10^{-6}	1.198×10^4	12.58	4.23×10^{-3}	0.015	Yes
Scratch Match Dryer	7.6×10^{-6}	1.198×10^4	12.58	4.23×10^{-3}	0.015	Yes

Source	PM Emission Factor (lb/scf)^a	Gas Volume @ 3% O₂ (dscf/MMBTU)	Combustion Volume of 1 cubic foot of gas (dscf/scf)	Grain Loading (grain/dscf)	Grain Loading Standard (grain/dscf)	Meet Grain Loading Standard?
Scratch Match Air Makeup	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Reblend Room Air Makeup	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Building #3 Air Makeup	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Building #4 Air Makeup	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dehydration North Boiler	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dehydration South Boiler	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #1 A Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #1 B&C Stages	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #2 A Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #2 B&C Stages	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #3 A Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #3 B&C Stages	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #4 A Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #4 B Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #4 C Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #5 A Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #5 B Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dryer #5 C Stage	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Wet Area Air Makeup	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
South Dryer Room 4&5	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes

Source	PM Emission Factor (lb/scf) ^a	Gas Volume @ 3% O ₂ (dscf/MMBTU)	Combustion Volume of 1 cubic foot of gas (dscf/scf)	Grain Loading (grain/dscf)	Grain Loading Standard (grain/dscf)	Meet Grain Loading Standard?
Air Makeup						
South Dryer Room 4&5 Roof Air Makeup	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Inspection Room Roof Air Makeup	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes
Dehydration Research Dryer	7.6 X 10 ⁻⁶	1.198 X 10 ⁴	12.58	4.23 X 10 ⁻³	0.015	Yes

^aAP-42, Table 1.4-2, 1998.

Table 6-3 Grain Loading Emissions for Fuel Oil Combustion

Source	PM Emission Rate (lb/gal) ^a	Gas Volume @ 3% O ₂ (dscf/MMBTU)	Combustion Volume of 1 cubic foot of gas (dscf/gal)	Grain Loading Emissions (grain/dscf)	Grain Loading Standard (grain/dscf)	Meet Grain Loading Standard? ^b
Processing East Boiler-No. 2 Distillate	0.0033	1,264 X 10 ⁴	1.770 X 10 ³	0.013	0.05	Yes
Processing West Boiler-No. 6 Residual	0.013	1,264 X 10 ⁴	1.896 X 10 ³	0.049	0.05	Yes

^aAP-42, Table 1.3-1 (Errata used) and Table 1.3-2, 1998 with ash reduction—see MathCad grain loading calculations. Because emission factor needs to be verified through source testing, it is only used here for estimating grain loading emissions. If necessary, Nonpareil will perform source testing to verify the grain loading after the permit is issued.

^bSee MathCad grain loading calculations.

6.4 FUGITIVE SOURCES

Fugitive calculations include paved and unpaved roads. These estimates have been included in the Tier I Application Forms and in the following Emission Calculations section.

Grainloading Emissions for # 6 Residual Oil - West Boiler

1. Correct the flue gas volume to the altitude of Blackfoot, Idaho:

$$\text{Altitude} := 4498 \text{ ft}$$

Subtract altitude pressure correction factor (Inches of Hg) from standard atmospheric pressure at sea level to obtain the corrected flue gas pressure.

$$\text{Correction} := 0.01 \cdot \frac{\text{Altitude}}{10} \quad \text{Correction} = 4.498 \text{ inch of Hg}$$

$$\text{StandAtmPress} := 29.92 \text{ inch of Hg}$$

$$\text{CorrFluePress} := \text{StandAtmPress} - \text{Correction}$$

$$\text{CorrFluePress} = 25.422 \text{ Inch of Hg}$$

2. Using the ideal gas law and knowing that n, R and T will remain constant:

Where, ■

V_2 = The gas volume corrected to altitude (dscf)

$$V_1 := 9199.5 \quad \frac{\text{dscf}}{\text{MMBTU}} \quad \text{The known gas volume}$$

$$P_1 := \text{StandAtmPress} \quad \text{The pressure of the know gas volume (29.92 inches of Hg)}$$

$$P_2 := \text{CorrFluePress} \quad \text{The pressure of the corrected gas volume}$$

$$V_2 := P_1 \cdot \frac{V_1}{P_2} \quad V_2 = 1.083 \cdot 10^4 \quad \frac{\text{dscf}}{\text{MMBTU}}$$

3. For 3% oxygen, using a standard correction ratio as presented in 40 CFR 60, Appendix A, Method 19,

Where, ■

F_2 = The gas volume corrected to 3% oxygen

$$F_1 := V_2 \quad \text{The altitude corrected flue gas volume}$$

$$F_2 := F_1 \cdot \frac{20.9}{20.9 - 3.0} \quad F_2 = 1.264 \cdot 10^4 \quad \frac{\text{dscf}}{\text{MMBTU}}$$

4. Determine the combustion volume of one gal.

Where, ■

CombustVol = The volume of flue gas created by the combustion one gal of # 6 Residual.

$$\text{Heat6Fuel} := 0.150 \frac{\text{MMBTU}}{\text{gal}}$$

$$\text{CombustVol} := \text{Heat6Fuel} \cdot F_2$$

$$\text{CombustVol} = 1.896 \cdot 10^3 \frac{\text{dscf}}{\text{gal}}$$

5. Determine the grain loading per dscf of flue gas.

Where, ■

GrainLoading = The amount of grains per dscf.

Assume reduction of 30% due to lower ash content (than used for AP-42 estimates)

$$\text{AshReduction} := 30 \%$$

$$\text{Sulfur\%} := 1.55$$

$$\text{PoundsPM} := \frac{(9.19 \cdot \text{Sulfur\%} + 3.22 + 1.5) \cdot (1 - \text{AshReduction})}{1000} \text{ lb PM/gal}$$

$$\text{PoundsPM} = 0.013$$

AP-42, Table 1.3-1 and Table 1.3-2

$$\text{GrainsPM} := 7000 \frac{\text{Grains}}{\text{lb-PM}}$$

$$\text{GrainLoading} := \frac{\text{PoundsPM} \cdot \text{GrainsPM}}{\text{CombustVol}}$$

$$\text{GrainLoading} = 0.049 \frac{\text{Grains}}{\text{dscf}} < 0.050 \frac{\text{Grains}}{\text{dscf}} \quad \text{IN COMPLIANCE}$$

Grainloading Emissions for #2 Distillate Oil - East Boiler

1. Correct the flue gas volume to the altitude of Blackfoot, Idaho:

$$\text{Altitude} := 4498 \text{ ft}$$

Subtract altitude pressure correction factor (inches of Hg) from standard atmospheric pressure at sea level to obtain the corrected flue gas pressure.

$$\text{Correction} := 0.01 \cdot \frac{\text{Altitude}}{10} \quad \text{Correction} = 4.498 \text{ inch of Hg}$$

$$\text{StandAtmPress} := 29.92 \text{ inch of Hg}$$

$$\text{CorrFluePress} := \text{StandAtmPress} - \text{Correction}$$

$$\text{CorrFluePress} = 25.422 \text{ inch of Hg}$$

2. Using the ideal gas law and knowing that n, R and T will remain constant:

Where, ■

V_2 = The gas volume corrected to altitude (dscf)

$$V_1 := 9199.5 \frac{\text{dscf}}{\text{MMBTU}} \quad \text{The known gas volume}$$

$$P_1 := \text{StandAtmPress} \quad \text{The pressure of the know gas volume (29.92 inchs of Hg)}$$

$$P_2 := \text{CorrFluePress} \quad \text{The pressure of the corrected gas volume}$$

$$V_2 := P_1 \cdot \frac{V_1}{P_2} \quad V_2 = 1.083 \cdot 10^4 \frac{\text{dscf}}{\text{MMBTU}}$$

3. For 3% oxygen, using a standard correction ratio as presented in 40 CFR 60, Appendix A, Method 19,

Where, ■

F_2 = The gas volume corrected to 3% oxygen

$$F_1 := V_2 \quad \text{The altitude corrected flue gas volume}$$

$$F_2 := F_1 \cdot \frac{20.9}{20.9 - 3.0} \quad F_2 = 1.264 \cdot 10^4 \frac{\text{dscf}}{\text{MMBTU}}$$

4. Determine the combustion volume of one gal.

Where, ■

CombustVol = The volume of flue gas created by the combustion one gal of # 6 Residual.

$$\text{Heat2Fuel} := 0.140 \frac{\text{MMBTU}}{\text{gal}}$$

$$\text{CombustVol} := \text{Heat2Fuel} \cdot F_2$$

$$\text{CombustVol} = 1.770 \cdot 10^3 \frac{\text{dscf}}{\text{gal}}$$

5. Determine the grain loading per dscf of flue gas.

Where, ■

GrainLoading = The amount of grains per dscf.

$$\text{Sulfur\%} := 0.5$$

$$\text{PoundsPM} := \frac{2 + 1.3}{1000} \quad \text{-----}$$

$$\text{PoundsPM} = 0.0033$$

AP-42, Table 1.3-1 and Table 1.3-2

$$\text{GrainsPM} := 7000 \frac{\text{Grains}}{\text{lb-PM}}$$

$$\text{GrainLoading} := \frac{\text{PoundsPM} \cdot \text{GrainsPM}}{\text{CombustVol}}$$

$$\text{GrainLoading} = 0.013 \frac{\text{Grains}}{\text{dscf}} < 0.050 \frac{\text{Grains}}{\text{dscf}} \quad \text{IN COMPLIANCE}$$

Fugitive Emissions Factor from Road Dust - Nonpareil

Road Description	Vehicle Description	Pollutant	Particulate Size Multiplier (k, Pounds/VMT)	Silt Loading (sL, g/m ²) ^b	Average Weight of Vehicles (W, Tons)	Number of Days in Averaging Period (N, days)	Number of Days with 0.01 in. Precipitation (P, days)	Emission Factor (T/VMT) ^a	VMT/yr	Emissions (T/yr)
Processing Plant Shipping	18-wheel diesel with refrigerated trailer	PM-10	0.016	12	29	365	90	7.23E-04	84	6.1E-02
Processing Plant Potato Receiving	10 & 18-wheel diesel spud truck	PM-10	0.016	12	24.4	365	90	5.58E-04	1679	9.4E-01
Scale Loop Road	10-wheel diesel spud truck & 18-wheel diesel spud truck with refrigerated trailer	PM-10	0.016	12	24.4	365	90	5.58E-04	8943	5.0E+00
Dehydrated Plant Shipping	18-wheel diesel with refrigerated trailer	PM-10	0.016	12	29	365	90	7.23E-04	256	1.9E-01
Idaho Potato Packers Receiving	18-wheel diesel spud truck	PM-10	0.016	12	29	365	90	7.23E-04	4745	3.4E+00
Idaho Potato Packers Shipping	18-wheel diesel with refrigerated trailer	PM-10	0.016	12	29	365	90	7.23E-04	3176	2.3E+00
Cull Truck to Processing Plant	10-wheel diesel spud truck	PM-10	0.016	12	19.8	365	90	4.08E-04	1168	4.8E-01
Silt Mud and Tare Dirt	10-wheel diesel dump truck & 10-wheel diesel pump truck	PM-10	0.016	12	18.6	365	90	3.71E-04	1314	4.9E-01
									TOTAL =	
										1.3E+01

^aEF = $[k \cdot (sL/2)^{0.65} \cdot (W/3)^{1.5} \cdot (1-P/4 \cdot N)] / 2000$ – AP-42, Paved Roads - Equation 2, Page 13.2.1-5, 10/02 Edition.

^bFrom Table 13.2.1-3, AP-42 - Recommended Default Silt Loading for Concrete Batching.

7.0 EXCESS EMISSIONS DOCUMENTATION

Permit Condition 7.8 of the current Tier II Operating Permit P-050300 requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upset, and breakdowns. This section is fairly self-explanatory. Nonpareil notes the following:

Subsections 133.02, 133.03, 134.04, and 134.05 are not specific applicable requirements. These provisions of the *Rules* only apply if the permittee anticipates requesting consideration under subsection 131.02 of the *Rules* to allow IDEQ to determine if an enforcement action to impose penalties is warranted. Section 131.01 states “. . . *The owner or operator of a facility or emissions unit generating excess emissions shall comply with Sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable. If the owner or operator anticipates requesting consideration under Subsection 131.02, then the owner or operator shall also comply with the applicable provisions of Subsections 133.02, 133.03, 134.04, and 134.05.*” Failure to prepare or file procedures pursuant to sections 133.02 and 134.04 is not a violation of the *Rules* in and of itself, as stated in subsections 133.03.a and 134.06.b. Therefore, since the permittee has the option to follow the procedures in subsections 133.02, 133.03, 134.04, and 134.05, and is not compelled to, the subsections are not considered applicable requirements for the purpose of this permit and are not included as such.

To date Nonpareil has not observed or recorded excess emissions. Should excess emissions occur in the future, Nonpareil will address them as appropriate in accordance with the regulations. In section 9.0, Compliance Certification Plan, excess emissions documentation and reporting are discussed in more detail for each applicable Tier I permit condition.

8.0 AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient impact analysis was performed for the Tier II Operating Permit P-050300 application submitted January 3, 2005 and subsequent updates were submitted in October 2005, March 2006, and July 2006.

The only change in emissions that have occurred since the Tier II Permit P-050300 was issued is the proposed replacement east processing boiler. An ambient air impact analysis was completed and included in the April 14, 2008 PTC application for the proposed replacement of the east processing boiler. The ambient impact analysis completed for the April 14, 2008 PTC application showed that the proposed replacement of the east processing boiler would not result in a significant increase in ambient air impacts.

The appropriate modeling analyses have been completed and demonstrate compliance with applicable ambient air quality standards therefore, no new modeling is necessary. The March 2006 modeling analysis and July 2006 modeling addendum as well as a copy of the modeling analysis conducted for the new replacement east boiler are included in this section; however, the modeling files are not included. The files will be provided upon request by IDEQ.

Air Quality Modeling Report
Nonpareil Corporation, Blackfoot, Idaho
March 2006

1.0 AMBIENT AIR QUALITY IMPACT ANALYSIS

This section describes the estimated ambient air quality impact from the facility. Air dispersion modeling has been conducted for this facility in order to demonstrate compliance with 40 CFR 50, National Ambient Air Quality Standards (NAAQS) for criteria pollutants. Toxic air pollutants were also evaluated against threshold emissions levels (ELs), and ambient concentrations for those pollutants exceeding their respective ELs were modeled and compared to the Acceptable Ambient Concentrations (AAC) or Acceptable Ambient Concentrations for Carcinogens (AACC) given in IDAPA 58.01.01.585 and 586.

- Modeling was conducted in accordance with EPA's *Guideline on Air Quality Models* and Idaho Department of Environmental Quality's (IDEQs) *Air Quality Modeling Guideline*. The modeling presented here is consistent with the October 2005 submittal; the only changes are revisions to flaker and dryer PM-10 emissions. The October 2005 modeling was generally consistent with the modeling protocol submitted to IDEQ on August 12, 2003, with the following exceptions:
- Model source, building, and ambient air boundary data for the Basic American Foods (BAF) facility, provided by IDEQ in the form of ISCST3 modeling files, was included in the modeling to assess the potential effects of BAF as a co-contributing source.
- The winds from the Pocatello airport meteorological data were rotated 20 degrees counterclockwise to adjust for the slightly different terrain forcing in this area. The Blackfoot site of the facility is located NNE of the airport, further up the Snake River, where terrain forcing has a more north to south orientation than the west to SW wind directions at the airport.
- Stack heights were adjusted to reflect actual conditions at the facility, and where needed, to show compliance with applicable impact limits. Nonpareil is in the process of adjusting the heights on the few stacks where changes were necessary to ensure consistency with the modeled heights.
- Stack diameters for horizontal stacks were revised to 0.001 meters and their velocities were revised to 0.001 m/sec. Stack velocities for stacks with raincaps were revised to 0.001 m/sec.

A description of the facility is given in Section 1.1. Details of the model input data, including emission unit information; meteorological data, receptor descriptions, and modeling options are given in Section 1.2. A description of the modeling analysis and results are given in Section 1.3.

1.1 FACILITY DESCRIPTION

The facility is a potato dehydration plant located approximately 1 mile northwest of Blackfoot in Bingham County, Idaho. The dehydration plant is located in Section 32, Township 2 South, Range 36 East, at Universal Transverse Mercator (UTM) Zone 12 coordinates of 388 km east, 4784 km north. The terrain surrounding the plant is generally flat.

The facility is a source of sulfur dioxide (SO_2), nitrogen oxides (NO_x), volatile organic compounds (VOC), carbon monoxide (CO), and particulate matter (PM) from fuel combustion; and a source of PM from the drying process. Total lead emissions from the facility are well below the 0.6 Tpy threshold requiring modeling in accordance with Table 1 of IDEQ's modeling guideline.

BAF, another food processing facility, borders Nonpareil to the west. At IDEQ's recommendation, emissions from BAF were accounted for in the modeling analysis. A layout of the Nonpareil facility, showing the location of the point sources and buildings is given in Figure 1-1. BAF buildings and emission points are also shown, to the west of the Nonpareil facility and sources. Roadways and railroad tracks within the Nonpareil property boundary were conservatively taken as the ambient air boundary.

Figure 1-1 illustrates the ambient air boundary for Nonpareil (which is split into two separate boundaries despite the facility's ownership of the lands between, except for a public road and a railroad right-of-way). The BAF facility, with its larger ambient air boundary, is seen to the west of Nonpareil. The figure shows the 25-meter grid density along the Nonpareil property boundary and for 100 meters out. It also shows that receptors were placed within the BAF property to assess Nonpareil impacts there.

1.2 MODEL INPUT

The Industrial Source Complex Short-Term Version 3 (ISCST3) model, version 02035, was used for this analysis. The ISCST3-PRIME algorithm was used to account for recirculation within building cavities. All modeling input and output files are included on the enclosed compact disc.

1.2.1 MODEL OPTIONS

Regulatory default modeling options were used, including stack tip downwash, final plume rise, calms processing, and buoyancy-induced dispersion. Since the area within a 3-km radius of the site is unpopulated agricultural land, rural dispersion coefficients were used. Elevated terrain was considered. Averaging times varied by pollutant and included the 1-hour, 3-hour, 8-hour, 24-hour, and annual averaging times. Modeling options are listed below in Table 1-1.

Table 1-1 Modeling Option Summary

Parameter	Setting
Regulatory Options	Regulatory Default
Dispersion	Rural, by Concentration
Terrain	Simple and Complex
Flagpole Receptors	None
Averaging Times	1-, 3-, 8-, and 24-hour; and/or annual (varies by pollutant)
Dispersion Output	Concentration ($\mu\text{g}/\text{m}^3$)
PRIME Option	Used – as recommended by IDEQ

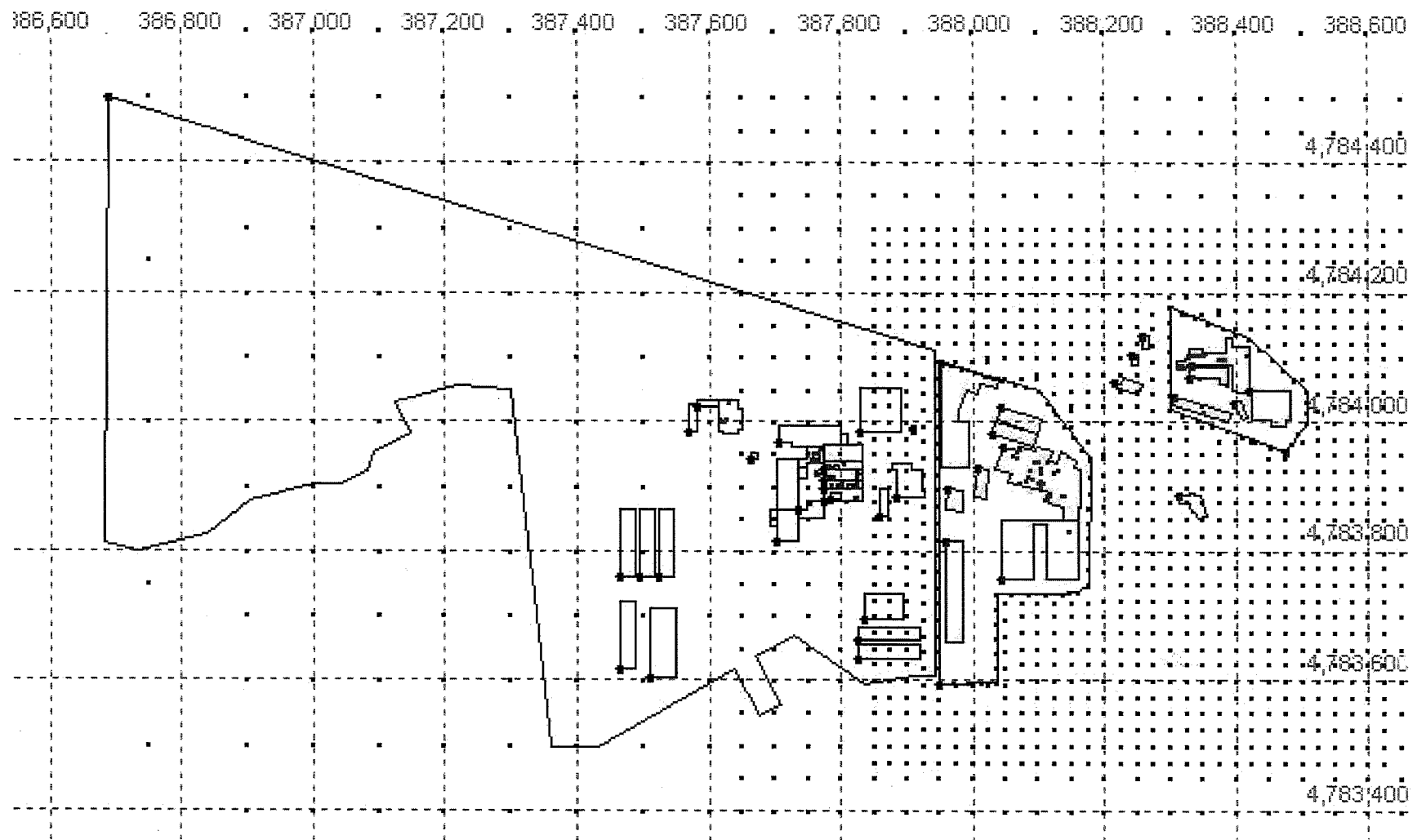


Figure 1-1 Nonpareil ISCST3 Model Layout, with BAF sources

1.2.2 EMISSION AND SOURCE DATA

All emission units that exhaust from stacks outside the buildings were modeled as point sources. In accordance with the IDEQ modeling guidelines, horizontal stacks were given a default velocity of 0.001 meters per second (m/sec) and a default diameter of 0.001 meters to eliminate stack tip downwash effects. Vertical stacks with rain caps were given a default stack velocity of 0.001 m/sec. The equivalent circular diameter of rectangular stacks was determined using the equation $Area = d^2\pi/4$, where d is the inside diameter of the stack.

There are eight fresh air make-up fans at the facility. These units use natural gas for heat, and are therefore sources of SO₂, NO_x, CO, VOC, PM₁₀, and TAP emissions from fuel combustion. These units exhaust into their respective buildings and then out vents, and were therefore modeled as volume sources.

Emission units at Nonpareil and specific stack parameters are listed in Table 1-2.

Table 1-2 Emission Units and Stack Parameters

POINT SOURCES								
	Source ID	Easting (X)	Northing (Y)	Base Elevation	Stack Height	Temperature	Exit Velocity	Stack Diameter
		(m)	(m)	(m)	(ft)	(°F)	(ft/s)	(ft)
Processing East boiler	EU_01	388318	4784088	1365	60	410	37.7	2.2999
Processing west boiler	EU_02	388313	4784088	1365	60	410	22.2	3
Starch Dryer	EU_03	388351.6	4784018	1365	28	91.99	29.7	2
Scratch Mash Dryer	EU_04	388373.6	4784098	1365	45	91.99	55.5	2.7999
Scratch Mash baghouse	EU_05	388376.7	4784096.5	1365	24	70	3.00E-03	0.003
Process Peeler exhaust	EU_10	388335.6	4784070.5	1365	24	190	0.2	2
Flaker #1	EU_11	388330	4784104	1365	54	120	47.2	3
Flaker #2	EU_12	388334	4784104	1365	54	120	47.2	3
Flaker #3	EU_13	388338	4784104	1365	54	120	47.2	3
Flaker #4	EU_14	388342	4784104	1365	54	120	47.2	3
Flaker #5	EU_15	388347.8	4784103	1365	54	120	47.2	3
Grinding Circuit #1 baghouse	EU_16	388356	4784106	1365	20	70	3.00E-03	0.003
Starch Plant baghouse	EU_17	388348.7	4784025.5	1365	20	70	3.00E-03	0.003
Grinding Circuit #2 baghouse	EU_18	388417.7	4784105	1365	16.5	70	59	1.1001
Flaker Baghouse	EU_19	388352.2	4784105.5	1365	20	70	103.2	1.2001
Dehy North Boiler	EU_20	388071.5	4783956.5	1364	28	379.99	20.2	1.6001
Dehy South Boiler	EU_21	388069.9	4783953	1364	28	379.99	4.6	3
Dehy Dryer #1A-stage	EU_22	388100.4	4783938	1364	45	187	40.8	2.5
Dehy Dryer #1B-stage	EU_23	388115	4783937	1364	30	150.01	18.9	3
Dehy Dryer #2A-stage	EU_24	388094.3	4783937.5	1364	45	187	40.8	2.5
Dehy Dryer #2B-stage	EU_25	388106.5	4783928	1364	30	150.01	18.9	3
Dehy Dryer #3A-stage	EU_26	388090	4783926	1364	45	187	40.8	2.5
Dehy Dryer #3B-stage	EU_27	388104	4783920.5	1364	30	150.01	27.2	2.5
Dehy Dryer #4A-stage	EU_28	388085.7	4783915	1364	23	160	34	2.5
Dehy Dryer #4B-stage	EU_29	388093	4783913	1364	23	150.01	21.2	2
Dehy Dryer #4C-stage	EU_30	388105.6	4783909.5	1364	23	129.99	13.1	1.7999
Dehy Dryer #5A-stage	EU_31	388083.7	4783910	1364	27	160	47.8	3.3999
Dehy Dryer #5B-stage	EU_32	388100.8	4783906	1364	27	150.01	34.5	2.6001
Dehy Dryer #5C-stage	EU_33	388106.9	4783905	1364	27	129.99	37.2	2
Dehy Bin Dryer	EU_34	388125.2	4783923	1364	22	90	3.00E-03	1.3999
Dehy research Dryer	EU_39	388146	4783830	1364	24	95	3.00E-03	0.5
Packaging Baghouse #1	EU_40	388137.1	4783885	1364	20	70	53.5	0.5
Packaging Baghouse #2	EU_41	388141.1	4783885	1364	20	70	148.6	0.5
Crush Room Baghouse #1	EU_42	388115.1	4783885.5	1364	16	70	3.00E-03	0.003
Crush Room Baghouse #2	EU_43	388112.7	4783880	1364	16	70	3.00E-03	0.003
Dehy Steam Peeler	EU_44	388069.3	4783944.5	1364	24	190	0.3	2
Processing West boiler NG	EU_01_NG	388318	4784088	1365	60	410	37.7	2.2999
Processing East boiler NG	EU_02_NG	388313	4784088	1365	60	410	22.2	3

Table 1-2 Emission Units and Stack Parameters (continued)

VOLUME SOURCES							
	Source ID	Easting (X)	Northing (Y)	Base Elevation	Release Height	Horizontal Dimension	Vertical Dimension
		(m)	(m)	(m)	(ft)	(ft)	(ft)
Reblend Rm Air Makeup	EU_06	388384.7	4784098	1365	32.8084	2.33	7.67
Scratch Match Air Makeup	EU_07	388373.3	4784089.5	1365	32.8084	2.33	7.67
Bld #3 Air Makeup	EU_08	388345.9	4784069	1365	32.8084	2.33	7.67
Bld #4 Air Makeup	EU_09	388333.3	4784091.5	1365	32.8084	2.33	7.67
West Area Air Makeup	EU_35	388063.4	4783947.5	1364	32.8084	2.33	7.67
S. Dryer Rm 4&5 Air Makeup	EU_36	388071.9	4783905	1364	32.8084	2.33	7.67
S. Dryer Rm 4&5 Roof Air Makeup	EU_37	388103.8	4783900.5	1364	32.8084	2.33	7.67
Inspection Rm Roof Air Makeup	EU_38	388131.5	4783924.5	1364	32.8084	2.33	7.67

The modeling runs used ISCST3 model source groups to quantify the impacts of Nonpareil emissions (source group NONPAR#) and to verify the receptor network including all areas where the facility had a significant impact for criteria pollutants. Nonpareil and BAF emissions were combined (source group NONPAR#B) to verify maximum ambient pollutant concentrations when both facilities are operating. BAF emissions (source group BAF) were also modeled to assess BAF contributions when high impacts were identified on the BAF property from the combined Nonpareil and BAF emissions. A separate source group was identified for each of the following scenarios: 1) Nonpareil burning residual oil in boiler 1 and natural gas in boiler 2 (#=1), 2) Nonpareil burning natural gas in boiler 1 and residual oil in boiler 2 (#=2). The model-predicted maximum impacts were always at least as high in scenario #2, where boiler 2 was burning residual oil, as they were in scenario #1, where boiler 1 was burning residual oil. Therefore, results from the scenario with boiler 2 burning residual oil are reported as model-predicted maximum impacts.

1.2.3 GOOD ENGINEERING PRACTICE STACK HEIGHT AND BUILDING DOWNWASH

Stacks that are lower than Good Engineering Practice (GEP) height may be influenced by the wake of nearby buildings and structures. Building parameters were entered into the Prime version of the Building Profile Input Program (BPIP-Prime), and the downwash parameters output were incorporated into all ISCST3 modeling runs. All Nonpareil and BAF buildings were included in the downwash calculations. Figure 1-1 visually depicts those 41 buildings.

1.2.4 METEOROLOGICAL DATA

IDEQ has specified the use of the Pocatello Municipal Airport surface data for 1987 – 1991 combined with the concurrent Boise/Air Terminal mixing height data for this area. The surface data station number is 24156, the mixing height station number is 24131. This data has been downloaded from EPA's Support Center for Regulatory Air Models (SCRAM) website and processed using PCRAMMET. The anemometer height was assumed to be 10 meters. The winds from the Pocatello airport were rotated 20 degrees

counterclockwise to account for the difference in orientation of the terrain bounding the Snake River Plain in Blackfoot, Idaho.

1.2.5 RECEPTOR NETWORK

All modeling analyses employed a receptor network that features 25-meter grid spacing along the ambient air boundary and for 100 meters beyond, 50-meter grid spacing out to 350 meters from the ambient air boundary, 100-meter grid spacing out to 1000 meters from the ambient air boundary, and 250-meter grid spacing out to 5000 meters from the property boundary. Model predicted maximum impacts for all pollutants and all averaging periods occurred within the 25-meter receptor grid spacing regions or barely into the 50-meter grid spacing areas, meeting IDEQ's requirement for at least 100-meter grid spacing in the vicinity of model maximum impacts.

This receptor network extended beyond the maximum extent of significant impacts (the radius of impact, or ROI) for all criteria pollutants except SO₂. For SO₂ only, a second model run was performed for all averaging periods with a supplemental receptor network, extending downwind (north) 9 kilometers at 500-meter grid spacing to verify that there were no exceedances of ambient air impact limits at any receptor at which Nonpareil had a significant impact. The ROI for SO₂ for all averaging periods was verified to be less than 12 kilometers for all averaging periods.

Terrain elevations for all receptors were obtained from United States Geological Survey (USGS) digitized elevation model (DEM) data.

The inner receptor network is shown in Figure 1-1 as dots outside the Nonpareil ambient air boundary. Figure 1-2 shows the outer receptor network for the primary modeling runs, and the corresponding USGS topographic maps. The supplemental modeling runs were executed to ensure the capture of all Nonpareil significant SO₂ impacts extended another nine kilometers north onto the Baldy Knoll and Rose topographic maps.

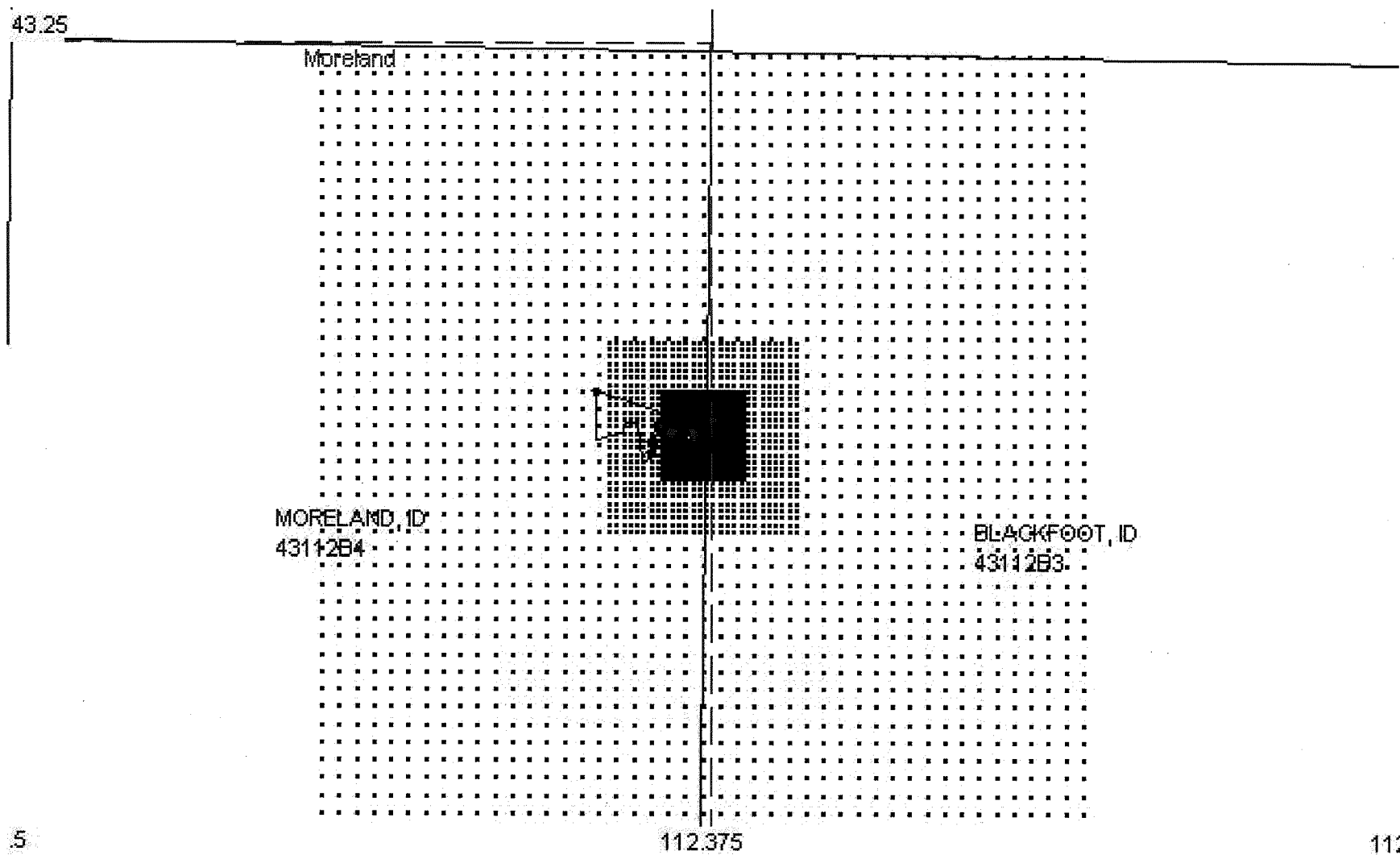


Figure 1-2 ISCST3 Model Outer Receptor Network

1.3 MODELING AND RESULTS

The objective of the modeling analysis was to determine the maximum ambient concentrations of criteria pollutants during operation of both Nonpareil and BAF facilities for comparison with NAAQS. Ambient air background levels applicable to this area will be added to the air dispersion model output for comparison to NAAQS. In addition, as recommended by IDEQ, buffer values of 20 ug/m³ for the 24-hour average and 5 ug/m³ for the annual average were added to the model-predicted Nonpareil PM₁₀ impacts to account for the BAF emissions IDEQ could not quantify. The applicable NAAQS and the associated background concentrations used in this modeling, as prescribed by IDEQ, are shown in Table 1-3.

Table 1-3 National Ambient Air Quality Standards and Background Concentrations

Pollutant	Averaging Period	NAAQS (ug/m ³)	Background Concentration (ug/m ³)
PM ₁₀	Annual	50	26 + 5 (buffer) = 31
	24-Hour	150	73 + 20 (buffer) = 93
NO ₂	Annual	100	17
SO ₂	Annual	80	8
	24-Hour	365	26
	3-Hour	1300	34
CO	8-Hour	10,000	2,300
	1-Hour	40,000	3,600

Reported model predicted maximum impacts represent 1st maximum over five years for annual average analyses, TAP analyses, and ROI analyses. For criteria pollutant analyses with averaging periods less than one year, the reported maximum is the second maximum annually and the highest of second maximums over the five years for the maximum for the five year modeling analysis.

Table 1-4 summarizes the modeling file names included in the analysis. Details of each run are given in the following sections.

Table 1-4 Model Files

Description	Model File	Meteorological Data Year	Results
Supplemental Radius of Impact Modeling	Nonpareil100520SROI_yr_SO2	1987 - 1991	SO ₂ ROI < 12 km
SO ₂ modeling	Nonpareil100520_yr_SO2	1987 - 1991	All impacts below NAAQS
NO ₂ refined modeling	Nonpareil100520_yr_NOx	1987 - 1991	All impacts below NAAQS
PM-10 refined modeling	Nonpareil0306D_yr_PMTEN	1987 - 1991	All impacts below NAAQS
CO refined modeling	Nonpareil100520_yr_CO	1987 - 1991	All impacts below NAAQS
Vanadium modeling	Nonpareil100520_yr_Vanadium	1987 - 1991	All impacts below AAC
Arsenic modeling	Nonpareil100520_yr_Arsenic	1987 - 1991	All impacts below AACC
Cadmium modeling	Nonpareil100520_yr_Cadmium	1987 - 1991	All impacts below AACC
Chromium VI modeling	Nonpareil100520_yr_ChromiumVI	1987 - 1991	All impacts below AACC

Description	Model File	Meteorological Data Year	Results
Formaldehyde modeling	Nonpareil100520_yr Formald	1987 - 1991	All impacts below AACC
Nickel modeling	Nonpareil100520_yr Nickel	1987 - 1991	All impacts below AACC
PAH modeling (Polycyclic aromatic hydrocarbons)	Nonpareil100520_yr_PAHs	1987 - 1991	All impacts below AACC

1.3.1 RADIUS OF IMPACT MODELING

Facility-only impacts were quantified in source groups to ensure that impact analyses were performed in all areas that Nonpareil had significant impacts. The significance levels given in Table 1-5 below (based on Table 2 of IDEQ's modeling guideline).

Table 1-5 Pollutant Significance Levels

Pollutant	Averaging Time	Significance Level ($\mu\text{g}/\text{m}^3$)
SO ₂	Annual	1
	3-hour	25
	24-hour	5
NO ₂	Annual	1
PM-10	Annual	1
	24-hour	5
CO	1-hour	2000
	8-hour	500

The modeling runs for all criteria pollutants showed that the ROI was less than the 5 kilometers included in the primary modeling refined receptor network. A supplemental run extending the receptor network nine kilometers downwind (to the north) verified that the ROI for SO₂ was under 12 kilometers.

Refined modeling for each pollutant is discussed in the following sections.

1.3.2 SO₂ MODELING

The Nonpareil and BAF SO₂ sources were modeled for the 3-hour, 24-hour, and annual averaging times. The results for each year of meteorological data are summarized in Table 1-6 below. The appropriate background concentrations have been added to determine compliance with NAAQS.

Table 1-6 SO₂ Modeling Results

Met Data Year	Maximum Modeled Impacts (µg/m³)		
	Annual ¹	3-hour	24-hour ²
1987	19.9	210	111
1988	21.2	226	121
1989	16.6	257	115
1990	17.1	226	124
1991	19.1	247	114
Maximum µg/m³	21.2	257	124
Background µg/m³	8	34	26
Total µg/m³	29.2	291	150
NAAQS (µg/m³)	80	1300	365
% NAAQS	36.5%	22.4%	41.1%

1 The maximum impact reported is the maximum outside the BAF ambient air boundary. The maximum annual average Nonpareil impact within the BAF boundary is under 3 ug/m³. BAF sources show annual average impacts within the BAF ambient air boundary (where ambient AQ standards don't apply) of over 50 ug/m³.

2 The reported maximum 24-hour average impact is the maximum combined impact of BAF and Nonpareil sources, which is dominated by BAF emissions and occurs within the BAF ambient air boundary (where ambient air standards don't apply). The maximum 24-hour average impact from Nonpareil emissions is 78.6 ug/m³ NNE of the Nonpareil facility.

The annual average impacts for the 1988 meteorological year are shown in Figure 1-3.

Contours	
—	18.0
—	30.0
—	40.0

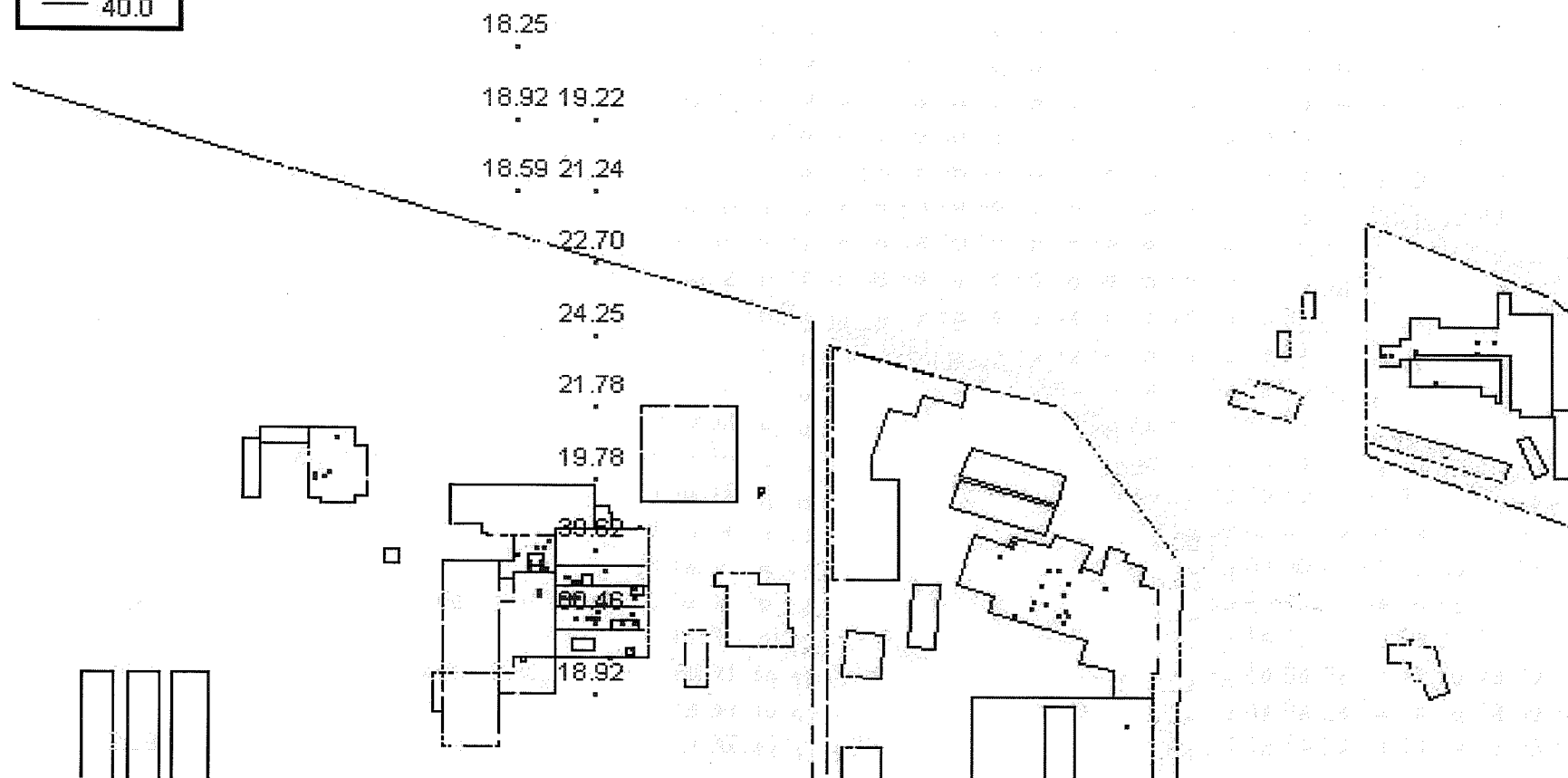


Figure 1-3 Maximum Predicted Annual SO₂ Impacts, 1988

Figure 1-3 shows all receptors with maximum annual average SO₂ impacts over 18 ug/m³ in bold print. Figure 1-4 verifies that all impacts on BAF property are dominated by BAF emissions by showing that the maximum annual average SO₂ impact of Nonpareil emissions within the BAF property boundary is under 3 ug/m³.

Figure 1-4 shows all receptors with maximum annual average SO₂ impacts from Nonpareil sources over 2 ug/m³ within the BAF ambient air boundary in bold print, and a contour showing the extent of 2 ug/m³ impacts. This figure clearly documents that BAF impacts dominate the maximum predicted impacts of the two facilities within the BAF ambient air boundary. Therefore, the maximum combined annual average SO₂ impact of the two facilities in ambient air is the 21.24 ug/m³ seen in Figure 8-3 just north of the BAF ambient air boundary.

The maximum impacts for the longer averaging periods occur within the 25-meter grid. The maximum impacts for the 3-hour averaging period occur 150 meters E-NE of the NE Nonpareil ambient air boundary in the 50-meter grid. All impacts are below NAAQS.

1.3.3 NO₂ MODELING

The Nonpareil and BAF NO₂ sources were modeled for the annual averaging time. All emitted NO_x is assumed to be converted to NO₂ for this analysis. The results for each year of meteorological data are summarized in Table 1-7 below. The appropriate background concentrations have been added to determine compliance with NAAQS.

Table 1-7 NO₂ Modeling Results

Met Data Year	Maximum Modeled Impacts (ug/m³)
	Annual ¹
1987	39.5
1988	40.8
1989	35.8
1990	37.5
1991	38.8
Maximum ug/m³	40.8
Background ug/m³	17
Total ug/m³	57.8
NAAQS (ug/m³)	100
% NAAQS	57.8%

¹ All maximum reported NO₂ impacts occur within the BAF ambient air boundary as a result of BAF emissions. Though ambient air standards do not apply to BAF impacts within their ambient air boundary, no further review was performed because the maximum predicted impacts of the combined facility were well within the NAAQS standard.

The maximum predicted impacts occur atop the BAF building which represents the primary NO_x source for that facility, where the receptor network transitions from 25-meter to 50-meter grid spacing. All impacts are below the NAAQS.